

Appl. No. 10/732,840

Amdt. Dated 9/28, 2005

Reply to Final Office Action of February 18, 2005

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A method for generating an x-ray beam, said method comprising the steps of:

operating a cathode to generate an electron beam;

directing the electron beam from the cathode through a selectable shaped aperture in an accelerating electrode, wherein the accelerating electrode is positioned in a central recess of an anode surface; and

impinging the electron beam at an acute angle on ~~an~~ the anode surface to form a focal spot on the anode surface.

2. (previously presented) The method of claim 1, wherein the acute angle is at most about twenty degrees.

3. (original)The method of claim 1 further comprising forming the focal spot on an outer periphery of the anode surface.

4. (Canceled)

5. (currently amended) An x-ray source comprising:

a cathode for generating an electron beam;

an accelerating electrode positioned in a central recess of an anode surface, the accelerating electrode comprising a selectable shaped aperture through which the electron beam from said cathode passes; and

Appl. No. 10/732,840  
Amdt. Dated 9/28, 2005  
Reply to Final Office Action of February 18, 2005

an anode positioned so that the electron beam impinges thereon at an acute angle.

6. (previously presented) The x-ray source of claim 5, wherein the acute angle is at most about twenty degrees.

7. (currently amended) The x-ray source of claim 5, wherein the anode comprises a disk shape, the disk shape being defined by an outer periphery, an inner periphery and [a] the central recess.

8. (currently amended) An imaging system comprising a gantry, a detector and an x-ray source coupled to said gantry, said x-ray source configured for radiating an x-ray beam along an imaging plane toward said detector, said x-ray source comprising a cathode for generating an electron beam, an accelerating electrode positioned in a central recess of an anode surface, the accelerating electrode comprising a selectable shaped aperture through which the electron beam from said cathode passes, and an anode positioned so that the electron beam impinges thereon at a acute angle.

9. (previously presented) The imaging system of claim 8, wherein the acute angle is at most about twenty degrees.

10. (currently amended) The imaging system of claim 8, wherein the anode comprises a disk shape, the disk shape being defined by an outer periphery, an inner periphery and [a] the central recess.

11. (currently amended) An x-ray source comprising:

means for generating an electron beam,

means for accelerating electrons in said electron beam away from said generating means, wherein the means for accelerating electrons is located in a central recess of an anode surface, and

Appl. No. 10/732,840

Amdt. Dated 9/28, 2005

Reply to Final Office Action of February 18, 2005

means for generating x-ray beams when said electron beam impinge thereon at an acute angle.

12. (previously presented)The x-ray source of claim 11, wherein the acute angle is at most about twenty degrees.